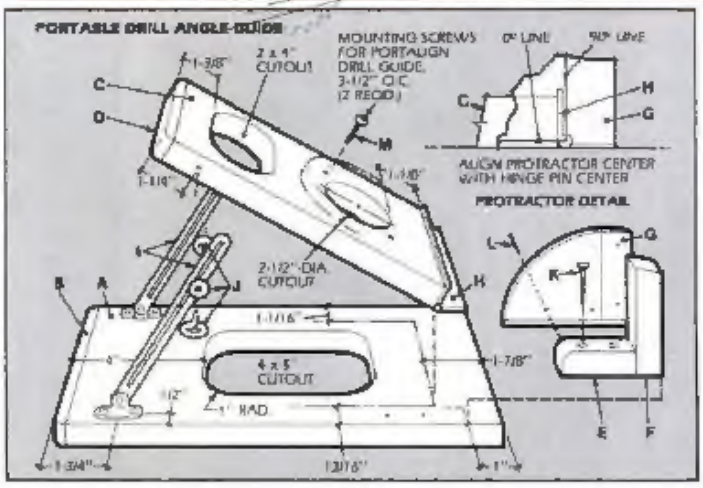
3 Drill angle guide

Boring angled holes accurately is easy with an angled drill guide. Scrap wood block under the workpiece will prevent bit from gouging the bench.

This jig allows a portable drill to bore angled holes with the precision of a drill press. A Portalign drill guide, available at Sears stores, is installed on the drill for mounting to the jig.

Begin by cutting the base (A) and platform (C) as shown. Oak strips glued to the end grain prevent warping. Now join the platform to the base with a continuous hinge. Next, install the protractor used to set the angle of the drill. Locate the protractor's centerpoint—where 0° and 90° lines intersect—directly over the center of the hinge pin. Mark an arrow on the platform edge, opposite the protractor's 0° line, to indicate the drill's angle.

Two 6-in. lid supports are used to hold the drill at the desired angle. Discard the friction fittings that come with the supports and replace them with two ¾-in. screw eyes. To set the jig, align the arrow with the desired number of degrees and tighten the screw eyes. Finally, glue 220-grit sandpaper to the jig's underside for a nonslip surface.

MATERIALS LIST—DRILL GUIDE

Key	No.	Size and description (use)
A	1	¾ × 7¼ × 12" pine (base)
B	1	¾ × ¾ × 7¼" oak (end strip)
C	1	¾ × 8¾ × 8¾" pine (platform)
D	1	¾ × ¾ × 8¾" oak (end strip)
E	1	¾ × ¾ × 2½" pine (block)
F	1	¾ × ¾ × 3½" pine (block)
G	1	7½"-dia. plastic protractor
H		1½ × 8⅝" continuous hinge
I	2	6" friction lid supports
J	2	¾"-dia. screw eye, washer
K	3	1¼" No. 8 fh screw
L	As req'd.	¾" brads
M	2	1" No. 14 panhead sheet-metal screw